



Application/Control No.: **09/677,493**

Filing Date: 10/02/2000

Application Title: "Integrated Database Data Editing System"

Applicant/Appellant: **George Guang Yang** (Previous used name: Guang Yang)

Examiner: **Baoquoc N. To**, Art Unit 2162

June 21, 2008

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

REPLY BRIEF TO EXAMINER'S ANSWER

George Guang Yang, Ph.D., Appellant, *Pro Se*
392 Hans Way
San Jose, CA 95133
Telephone: (408) 729-1282
E-mail: guangyang14@hotmail.com

This is in response to the examiner's answer mailed to me on May 28, 2008.

I mailed my "Notice of Appeal" and "Brief of Appeal" under 37 CFR § 41.37© to your office on January 11, 2008 to appeal your office final rejection of my Claims 1-7 mailed to me on November 28, 2007 by Primary Examiner, Mr. **Baoquoc N. To**. I mailed my "Supplement to Brief of Appeal" to your office on March 1, 2008 to response to your "Notification of Non-Compliant Appeal Brief" mailed to me on February 20, 2008. My appeal brief was filed on March 4, 2008.

I am filing this reply brief under 37 CFR § 41.41 to respond the "Examiner's Answer" mailed to me by Primary Examiner Baoquoc N. To on May 28, 2008. Attached is my Claims 1-7 which was not amended and was submitted with my "Supplement to Brief of Appeal" to your office on March 1, 2008. The following is my response to the "Examiner's Answer" items "(9) Grounds of Rejection" and "(10) Response to Argument".

"(9) Grounds of Rejection"

The examiner rejected my appealed Claims 1-7 for "obviousness rejections" under **35 USC § 103(a)** without any factual merit or legal basis. My Claims 1-7 are different from any prior arts and are original, useful and patentable under **35 USC § 101**.

My present invention is related to an integrated database data editing system for editing and managing the relational database data contents remotely through intranet or Internet in an efficient and easy-to-use manner. The editing system contains the client computer visual graphic user interfaces and tools to input, output, modify, update and manage the database data, which is extremely useful for editing the large database objects such as the large text objects and binary objects. The TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols are used to communicate between the client and server computers, which guarantees the data transmission consistency and security. The client/server version of the system is implemented by using Java technologies and deployed on intranet. The web version is implemented by using web and Java technologies and deployed on Internet and also on any other network systems. The web version has more advantage to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket

Layer) and firewall. The mechanisms for user authentication and access control to the database data editing system are well designed and implemented. All these functions and mechanisms are new and useful, and have not been disclosed in any prior arts.

#4. My Claims 1, 4 and 6 cannot be rejected by the examiner under 35 U.S.C. § 103(a) as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334). My Claims 1, 4 and 6 are original, useful and patentable under 35 U.S.C. § 101.

Gill et al. teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired publishing documents. The related information is stored in an item header file, as well as in a number of separated records. The system includes a network of computers and commercial software for text, image and layout data presentation. Gill et al. do not teach anything related to relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors) as my present invention.

Bowman-Amuah teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitating packaging. Bowman-Amuah does not teach anything related to relational database nor data editors as my present invention.

Allport teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach anything related to the integrated database data editing system of my present invention.

Regarding my **Claim 1**, Gill et al. do not teach anything related to a relational database as my invention, wherein “an integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:”

(i) Gill et al. (col. 4, lines 43-51) teach that the utility programs communicate with the data controller to control access to multi-media object files supplied by a file server (not relational database) for staff member client applications or for being written to the storage device (col. 10, lines 13-15), which is totally different from my Claim 1(i) wherein “said client computer retrieves the database data from the remote server computer database, modifies, updates, input, output the data and then sends the data back to the original database;”. Gill et al. fail to explicitly indicate what the file server is and where it is located (because the technologies are totally different for the PC application to the client/server applications in intranet or the client/server applications in Internet).

(ii) Gill et al. (col. 4, 66-67) use a user interface 60 and a text editor to create and modify the text of a multi-media object, which is different from my Claim 1(ii) wherein “said client computer directly edits and modifies the database data without writing detail computer language codes in an efficient and easy-to-use manner;”. Gill et al. fail to teach what the user interface and text editor are, and how the data is edited.

(iii) Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the commercial text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects from the project coordinator and file server (not relational database), which is not similar to my Claim 1(iii) wherein “said client computer directly edits and modifies the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer;”. There are some commercial text and multimedia editors available on the market and I can make my own editors as well. My invention is the first time to directly implement and modify these commercial editors as elements of the editing tools to edit the database large text and binary data types.

(iv) Gill et al. (fig 4, S4, col. 4, lines 40-51) teach that a cable links the computer processor P to network, and the client applications communicate with project coordinator, utility programs and data controller to control access to multi-media object files supplied by the file server (not relational database), which is different from my Claim 1(iv) wherein “said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers;”.

(v) My Claim 1(v) teaches that “said database data editing system implements user authentication and access control mechanisms which assign different user group with different privileges.” My invention is the first time to use these security concepts and mechanisms to implement the integrated database data editing system, which is different from the arts of Gill et al., Bowman-Anuah and Allport.

Gill et al. (col. 8, lines 49-62) teach that “The multi-media presentation access controller 320 controls access to the project coordinator 24 by establishing the validity of a staff member’s logon name and password. In addition, the multi-media presentation access controller 320 also establish the authorization of a staff member to access the multi-media objects 304 related to a selected multi-media presentation. Once access to the project coordinator 24 is granted, access privileges are checked to determine which multi-media presentation, multi-media presentation section and multi-media object type a staff member can potentially access as long as the multi-media project management and control system 20 client application being used by the staff member can process the multi-media object file type.” Gill et al. do not invent the security mechanism of using logon name and password, but just use these security mechanisms in their system. It is one of the industrial standard concepts to secure the application access by using user’s login id and password. Gill et al. do not teach anything related to secure the access to my integrated database editing system as described in my Claim 1(v).

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031) “Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific read/write/delete/modify authority. For example, the following groups may be defined as

having increasing rights:”. Bowman-Amuah does not invent the security techniques of assigning different user group the different access rights but just uses these techniques. It is a standard industrial concept to assign different access rights to different user groups. I use this security concept the first time to implement my integrated database data editing system in the present invention.

Gill et al. (col. 2, lines 46-50) teach that “The multi-media project management system and control system has a number of different data bases for storing multi-media object data and information...” which does not mean or suggest that the multi-media data is stored in a relational database. Gill et al. explicitly teach that the multi-media object data is stored in a file server, and there is nowhere in Gill’s invention Gill et al. suggest to use a relational database.

Allport teaches that (col. 7, lines 60-66) “Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ...” and (col. 24, lines 28-31) “Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exit options.” Here, Allport suggests to use a relational database to store some parameter entries in the remote control, and to use a pop-up menu to provide options for selecting an object, which is not similar to anything in my invention of the integrated database data editing system.

As I stated above, neither Gill et al., Bowman-Amuah nor Allport teaches any mechanism or function similar to my invention of the integrated database data editing system. There is no any relationship between the arts of Gill et al, Bowman-Amuah and Allport. Therefore, it is impossible to one ordinary skilled in the time of the invention was made to modify Gill et al. and Bowman-Amuah systems to include editing the contents stored in the relational database of the remote control as suggested by Allport in order to allow organized data in the table to be edit convenience by the click of mouse as the examiner assumes.

Regarding my **Claim 4**, I teach that “The Header Panel of the Database Data Manager of Claim 3 contains a list of databases and database tables for each database, and ...”.

Koppolu et al. (US Patent No. 5,801,701) teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a compound document with a Spreadsheet object embedded in a Word application. Koppolu et al. do not teach anything related to the integrated database data editing system as my invention.

Koppolu et al. (fig. 32, 3204, VAC1, VAC2, VAC3) teach an example application that uses a Windows form architecture as the basis for its user interface, including a menu bar and application workspace area (3204) with three project icons (VAC1, VAC2, VAC3), which is different from the header panel of the Database Data Manager in my Claim 4. I use the industrial standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces of Database Data Manager in my invention.

(i) Gill et al. (col. 16, lines 48-49) use the pop-up menu, window and line to implement the multi-media objects, which is different from my Claim 4(i) wherein “a Detail Panel is popped-up when double-clicked the database name;”.

(ii) Gill et al. (col. 15, lines 5-8) use a “hot text” that performs a desired action by placing the cursor and clicking the mouse on it, which is different from my Claim 4(ii) wherein “a database table is popped-up when double-clicked the table name.”

Regarding my **Claim 6**, I teach that “A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.”

Gill et al. (col. 12, lines 57-67) teach that “The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise is obtained from a plurality of external sources including, but not limited to, data

communication connections S4 to the file server 28 of the multi-media project management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information.” Gill et al. only teach that the multi-media objects are “downloaded” or “obtained” from the external sources S1-S6. Gill et al. do not teach anything related to my Claim 6.

#5. My Claim 3 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701). My Claim 3 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my **Claim 3**, I teach that “The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents.” Gill et al., Bowman-Amuah and Allport do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my Claim 3.

Gill et al. (col. 3, lines 66-67 and col. 4. lines 1-3) teach that the Fig. 1 illustrates the major architectural components of the multi-media project management and control system 20 comprising a plurality of networked processors or workstations, which is totally different to my Claim 3 wherein I teach a database data manager comprising a header panel and a detail panel.

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a Spreadsheet object embedded in a Word document application. Koppolu et al. do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my claim 3.

Koppolu et al. (fig. 32) use an industrial standard Window form architecture for user interface, including a menu bar (3203) and application workspace areas (3204 &

3205), which is different from my Claim 3 wherein the Head Panel and the Detail Panel of the Database Data Manager are used to edit the remote database data contents and have the “parent-child” relationship. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up.

As I state above, it is not possible to one ordinary skilled in the art at the time of the invention was made to modify the Gill et al, Bowman-Amuah and Allport systems to include the Windows form user interface as used by Koppolu in order to provide layout structure to allow the user to visualize and select database data for editing as disclosed in my Claim 3 of the present invention.

#6. My Claim 5 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701) and further in view of Moursund (US Patent No. 5,644,739). My Claim 5 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my **Claim 5**, I teach that the detail panel of the database data manager contains the functions and mechanisms as described in claim 5(i)-(vi). Gill et al. teach a multi-media presentation system for printing, Bowman-Amuah teaches a system for affording consistency in a development architecture framework and Allport teaches a remote control by IR (infrared) commands to control various consumer appliances, which are totally different from my Claim 5 wherein the Detail Panel of the Database Data Manager contains a plurality of tools, functions and mechanisms to remotely access, edit and manage the relational database.

Koppolu et al. (col. 7, lines 53-64) teach a method to edit the containee object, such as a spreadsheet program in a word processor, which is totally different from my Claim 5(i) wherein that “a Database Designer for creating and modifying the database;”.

Gill et al., Bowman-Amuah, Allport and Koppolu et al. do not explicitly teach anything related to my Claim 5(ii)-(vi) wherein that “(ii) an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and (iii) a Table Designer for designing and modifying the database tables; and (iv) a Database Schema

for designing and modifying the database data structure and micros; and (v) a Data Filter for selecting a set of data from one or more database tables; and (vi) an SQL Console for writing and executing the SQL codes to the remote server database.”

Moursund teaches a system and method for intuitively adding a button or other type of control to a tool bar or other region of a Windows form for holding the same. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund’s system is totally different from my invention of the integrated database data editing system.

Moursund (fig. 4G, 112) teaches the control menu boxes 112 located on the top of the container window for displaying the control buttons. Moursund (col. 5, lines 39-45) teaches that “Briefly described, the ‘MICROSOFT ACCESS’ application program is an interactive relational database for the ‘WINDOW’ operating system. The object 26 may be of several different types, including tables, queries, forms, reports, micros, or modules. The ‘MICROSOFT ACCESS’ application program includes a button creation routine 32 for customizing the toolbar 28 in accordance with the present invention.” Microsoft Access database is a simple relational database which only supports small data types, only runs on a PC and the user interface cannot be separated from the database, which is totally different from my claim 5.

As I state above, it is impossible to one ordinary skilled in the art at the time of the invention was made to modify Gill, Bowman-Amuah, Allport and Koppolu systems to include a button of the tool bar of Microsoft Access to edit or modify the database structure as used by Moursund in order to allow the user to see the entire process and user ease of use as the examiner assumes.

#7. My Claim 2 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701). My Claim 2 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my **Claim 2**, I teach that “The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that display a database table or a subset data of a table and have the following characters:...”.

Gill et al., Bowman-Amuah, Allport and Koppolu do not teach anything related to the user interfaces and tools as my Claim 2(iv) wherein “said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed;”. Gill et al. (col. 16, lines 48-49) use the pop-up menu and window to implement multi-media objects. The “pop-up menu” and “window” are the industrial standard components for implementing Windows form layout. Gill et al. use these standards to implement their application, which is totally different from the functions and mechanisms as disclosed in my Claim 2(iv).

Gill et al. (col. 5, lines 1-33) use a plurality of commercial multi-media editors to edit the multi-media objects, which is different from my Claim 2(v) wherein “said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell.”

Gill et al., Bowman-Anuah, Allport and Koppolu et al. do not explicitly teach the well-defined user interfaces and tools that display a database table or a subset data of a table and have the following characters as disclosed in my Claim 2(i)-(iii) wherein “(i) said database data on each table cell is defaulted as read only; and (ii) said database small text data on each table cell is directly edited when single-clicked by the mouse; and (iii) said table cell contains a small icon as a place-holder for the large text data type or large binary data type;”. Koppolu et al. (fig 4, col. 8, lines 25-46) teach that the spreadsheet object is embedded in a word processing application, which is totally different from my Claim 2(i)-(iii). Koppolu et al. do not suggest anything similar to my Claim 2 (i)-(iii) either.

As I state above, it is impossible to one ordinary skilled in the art at the time of the invention was made to modify Gill et al., Bowman-Amuah, Allport and Koppolu systems to include a user interface and a spreadsheet having cell defaulted as read only, the cell can be edited by using the cursor or clicking and the cell having dropping down

menu and the buttons added by Moursund to allow the user with the editing tools to use in an easy manner as the functions and mechanisms taught in my Claim 2 as assumed by the examiner.

#8. My Claim 7 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Teper et al. (US Patent No. 5,815,665). My Claim 7 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my **Claim 7**, I teach that “A web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.” Gill et al., Bowman-Amuah and Allport do not teach an integrated database data editing system deployed and runs on Internet or any other network system or anything similar to my Claim 7.

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my Claim 7 where the web version of the integrated database data editing system is implemented with the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet or also intranet.

Teper et al. teach an Online Brokering Service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the Brokering Service, and are provided with respective client and server software components for using the Brokering Service. Teper et al. do not teach anything related to the integrated database data editing system as disclosed in my present invention.

Teper et al. (col. 17, lines 23-33) teach that “The client application 42 passes the challenge message to the MSN SSP package 44A via the InitializeSecurityContext API. In response to this API call, the MSN SSP package 44A generates and returns the response message, and computes a session key which may be used for the subsequent

encryption of data between the client and server applications 42, 52. (It is envisioned that the session key will be used for encryption primarily by custom applications 42, 52, and that other applications will instead use standard encryption protocols such as the Secure Sockets Layer protocol or the Private Communications Technology protocol.)”. Teper et al. do not teach anything similar to my claim 7.

The Public Key Infrastructure (PKI) technology has been widely used as an industrial standard since 1970’s, and the Secure Socket Layer (SSL) is also widely used as an industrial standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. In my invention, the PKI, SSL and firewall technologies are the first-time used to encrypt and secure the database data transmission between the client computer and the server computer through Internet or intranet.

As I state above, Gill et al., Bowman-Amuah, Allport and Teper et al. do not teach anything related to the web version of integrated database data editing system and security mechanisms as my Claim 7. It is impossible for one ordinary skilled in the art at the time of the invention was made to modify the Gill et al., Bowman-Amuah and Allport systems to include both key encryption and secure socket layer as used by Teper et al. in order to protect the database data transferring from the server to client or over the unsecured Internet as assumed by the examiner.

“(10) Response to Argument”

“Claims 1, 4 and 6”

My invention concludes Claims 1-7 “...particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” (35 USC § 112, second paragraph). My invention Claims 1-7 are original and useful, and are different from any prior arts and patentable under 35 USC § 101.

My present invention is related to an integrated database data editing system for editing and managing the relational database data contents remotely through intranet or Internet in an efficient and easy-to-use manner. The editing system contains the client

computer visual graphic user interfaces and tools to input, output, modify, update and manage the database data, which is extremely useful for editing the large database objects such as the large text objects and binary objects. The TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols are used to communicate between the client and server computers, which guarantees the data transmission consistency and security. The client/server version of the system is implemented by using Java technologies and deployed on intranet. The web version is implemented by using web and Java technologies and deployed on Internet and also on any other network systems. The web version has more advantage to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall. The mechanisms for user authentication and access control to the database data editing system are well designed and implemented. All these functions and mechanisms are new and useful, and have not been disclosed in any previous arts.

Gill et al. teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired compound publishing documents. The related information is stored in an item header file, as well as in a number of separated records. Gill et al. do not teach anything related to a relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors) similar to the integrated database data editing system taught in my present invention Claims 1-7.

Gill et al. teach that (col. 4, lines 64-67) "Text editing unit 52 is used to create and modify the text of a multi-media object and includes a multi-media object retrieval unit 56, a user interface 60 and a text editor 64." Gill's system does not use a relational database and the file server does not contain a relational database. The examiner should not assume that Gill et al. use any relational database. Gill et al. only use the commercial editors to edit the text and multimedia data objects, which are totally different from my integrated database data editing system, wherein the mechanisms and functions of the client computer user interfaces and editors are well defined, and the client computer user interfaces directly retrieve and edit the relational database data from the remote computer server database.

Gill et al. does not teach anything related to a relational database here and nowhere else in their invention. A relational database is a software product which stores text and binary data in a table with columns and rows, such as Oracle database, IBM DB2 database and Microsoft SQL Server database. A relational database communicates with other software components by DataBase Management System (DBMS) through Open DataBase Connection (ODBC) or Java DataBase Connection (JDBC) and by using Structured Query Language (SQL). Gill et al. only teach the files and records in their invention. The examiner should not assume or wrongfully interpret that Gill et al. use any relational database.

Allport teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach anything related to the integrated database data editing system as my invention.

Allport teaches that (col. 7, lines 60-66) “Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ...” and (col. 24, lines 28-31) “Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exit options.” Here, Allport discloses to use a relational database to store some parameter entries in his remote control, and to use a pop-up menu to provide options for selecting an object. Allport does not invent a relational database nor a pop-up menu but just uses them in his remote controller. Allport does not teach anything similar to my invention of the integrated database data editing system.

Gill et al. (col. 4, lines 64-67) use the text and multi-media editors in the client computer to edit the combined data objects but do not use a relational database. Allport (col. 7, lines 60-66; col. 24, lines 28-31) uses a relational database in the IR controller to store some parameters. None of them teaches anything similar to my integrated database data editing system as disclosed in my invention.

Gill et al. teach that (col. 5, lines 12-25) “The multi-media object retrieval unit 56 is also connected to plurality of editing components which are illustrated as the text editor 64A, picture editor 64B, movie editor 64C, sound editor 64D to optionally edit the multi-media object. The editors 64A-D are interactive editors that enables a designer/editor to modify an existing multi-media object retrieved from the file server 28. These elements can be commercially available editing tools which are installed on various ones of the processors which comprises the network...” and that (col. 10, lines 10-17) “...the check-in utility communicates with the multi-media object controller 324 to release the staff member’s exclusive access to the checked-out multi-media object file 304, and subsequently provides the file server 28 with a new version of the multi-media object file 304 to be written to the storage device. As an alternative to checking-out a multi-media object file 304, the edit header utility 516 can be used to modify item file header 308 fields...” Gill et al. use the commercially available text editor 64A, picture editor 64B, movie editor 64C and sound editor 64D to retrieve and edit multi-media objects from the file server 28 and then send the edited data to the storage device. Gill et al. do not explicitly teach what the file server 28 is, where the file server is located, and how the multi-media objects are retrieved from the file server. Gill’s file server contains no relational database and is not related to my integrated database data editing system as the present invention. Gill et al. do not teach anything related to my present invention which uses the client visual environment, tools and data editors to retrieve and edit the server relational database data contents and then send the edited data back to the original database. The examiner cannot assume that Gill et al. use any relational database in their file server.

Gill et al. fail to teach what the multi-media editors are and how the multi-media objects are edited, but only disclose that “These elements can be commercially available editing tools...” (col. 5, lines 18-22). Gill et al. teach that (col. 4, lines 64-67 and col. 5, lines 1-12) “Text editing unit 52 is used to create and modify the text of a multi-media object and includes a multi-media object retrieval unit 56, a user interface 60 and a text editor 64. The multi-media object retrieval unit 56 retrieves, and optional check-out for exclusive use, multi-media objects from the project coordinator 24. In addition, the multi-media object retrieval unit 56 issues requests to display each retrieved multi-media

object, via a user interface 60, to the designer/editor. To accomplish this, multi-media object request information flows from the designer/editor to the user interface 60 and on to the multi-media object retrieval unit 56 for multi-media object retrieval from the project coordinator 24. Once the multi-media object is retrieved, display options are set and the multi-media object is presented to the user interface 60 to be displayed.” Here, Gill et al. teach a multi-media object retrieval unit 56 which communicates with the project coordinator 24 and the user interface 60 and text editor 64 to retrieve, display and modify the multi-media object. A designer/editor uses the interactive editors 64A-D to modify an existing multi-media object retrieved from the file server 28 (col. 5, line 12-18). Gill’s system does not use any relational database and the file server 28 does not contain a relational database. Gill’s user interface and commercial editors are totally different from my integrated database data editing system, wherein the mechanisms and functions of the client computer user interfaces and editors in my invention are well defined, and the client computer user interfaces and tools directly retrieve and edit the relational database data from the remote computer server database and then send the edited data back to the original relational database.

Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the commercial text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects from the project coordinator and file server (not relational database), which is not similar to my Claim 1(iii) wherein “said client computer directly edits and modifies the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer;”. There are some commercial text and multimedia editors available on the market, and I can make my own text and multimedia editors as well. My invention is the first time to directly implement these commercial editors as elements of the editing tools to edit the large data types of the remote server relational database, which is similar to that the architects use bricks, concrete, steel and other materials to build a building.

Gill et al. teach that (col. 12, lines 57-67) “The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise

is obtained from a plurality of external sources including, but not limited to, data communication connections S4 to the file server 28 of the multi-media project management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information.” Gill et al. only teach that the multi-media objects are “downloaded” or “obtained” from the external sources S1-S6 (not edited and sent back to S1-S6). Gill et al. do not teach anything related to my Claim 6 where the client and server computers are coupled in an intranet and the client/server version of the integrated database data editing system is deployed and run on the intranet.

Gill et al. fail to teach what computer networking software and protocols are used to communicate the file server. Gill et al. (fig 4, S4, col. 4, lines 40-51) teach that a cable links the computer processor P to network, and the client applications communicate with project coordinator, utility programs and data controller to control access to multi-media object files supplied by the file server (not relational database), which is different from my Claim 1(iv) wherein “said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers;”. Here, my invention is the first time to use TCP/IP to transfer database data between the client and the server computers.

Gill et al. (col. 8, lines 50-55) teach that the multi-media presentation access controller 320 controls access to the project coordinator 24 by using a staff member’s logon name and password. Gill et al. do not invent this security mechanism of using logon name and password but just use it. It is one of the industrial standard concepts to secure the application access by using user’s login id and password. I use the user id and password plus other security mechanisms the first time to implement my integrated database data editing system. Gill et al. do not teach anything related to secure the access to my integrated database editing system as described in my Claim 1(v) that “said database data editing system implements user authentication and access control mechanisms which assigns different user groups with different privileges.”

Bowman-Amuah teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area

affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitate packaging. Bowman-Amuah does not teach anything related to the integrated database data editing system as my present invention.

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031) “Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific read/write/delete/modify authority. For example, the following groups may be defined as having increasing rights:”. Bowman-Amuah does not invent the mechanism to assign different user group the different access rights. It is one of the industrial standard concepts to assign different access rights to different user groups. I use this mechanism the first time to implement my integrated database data editing system in the present invention. Bowman-Amuah does not teach anything related to my Claim 1(v) that “said database data editing system implements the user authentication and access control mechanisms which assign different user group with different privileges.”

Gill et al. use the login name and password security mechanism to implement their system and Bowman-Amuah uses the mechanism of assigning different users with different access rights security mechanism to implement his system. None of them invents these security mechanisms but just use these industrial standards and concepts. I use these security concepts of industrial standards to implement my integrated database data editing system in the different ways and different system as those of Gill et al. and Bowman-Amuah.

Allport discloses (col. 7, lines 60-66) “a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ...” and (col. 24, lines 28-31) “editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exist options.” Allport uses a relational database to store some parameter entries inside his remote controller and uses a pop up menu to display and edit options of the parameters, which is different from anything in my present invention.

Allport also discloses that (col. 27, lines 45-47) “The other ports (635, 645, 650 and 655) are optional, but at least one is required in order for the remote control 10 to connect to an outside data source such as the internet.” Here, Allport teaches the remote control hardware design which is different from my integrated database data editing system in the present invention.

Allport’s remote control does not relate to Gill’s multi-media project management and control system for printing, nor relate to Bowman-Amuah’s system for program code version control, and none of their systems is similar or related to my integrated database data editing system in the present invention.

As I argue above, Gill et al. disclose a multimedia editing system using commercial text editor and multimedia editor to edit data retrieved from the file server to compose a compound document for printing (col. 5, lines 1-33). Gill et al. do not teach anything related to a relational database. Allport and Gill et al. systems are not related and do not share a commonality of data editing system which when combined allow Gill’s system to access and edit the data from Allport’s relational database in the IR remote control. Gill et al. also use a security mechanism such as user name and password to gain access to the data storage (col. 8, lines 50-55). Gill et al. lack assign different user group with different privileges. Bowman-Amuah uses the security mechanism of assigning different access right to different groups (paragraph 1031). The systems of Gill et al., Allport and Bowman-Amuah are not related to each other. The examiner should not assume that their systems are related and can be combined by an ordinary skilled person.

Gill et al. do not teach anything related to a relational database, nor anything related to my Claim 6 wherein “A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.” Gill et al. disclose the multimedia editing system which edit multi-media object obtained from the data storage (col. 5, lines 1-33), the file server 28 or the internet (col. 12, lines 61-67). Gill et al. only disclose that the sources of media objects are downloaded from external sources including internet, which is totally different from my Claim 6.

Claim 3

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a compound document with a Spreadsheet object embedded in a Word application. Koppolu et al. do not teach anything related to my invention of the integrated database data editing system.

Koppolu et al. (fig. 32 and col. 60, lines 26-36) teach an example application that uses a Windows form architecture as the basis for its user interface, including a menu bar (3203) and application workspace areas (3204 & 3205) with lists (3206 & 3207), which is different from my Claim 3 wherein the Database Data Manager contains a Head Panel and a Detail Panel. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up and the detailed function or data is displayed.

Koppolu et al. do not invent the Windows form, but just use the form functions to implement their software applications. I use these form functions of industrial standards the first time to implement my integrated database data editing system in the ways and system totally different from those of Koppolu et al.

Claim 2

Koppolu et al. disclose that (fig. 4, col. 8, lines 25-28) “FIG. 4 is a diagram of the embedded spreadsheet object as it appears when activated in place within the compound document. The spreadsheet object 405 is edited directly in the client window 404 of the word processing application.” Koppolu et al. directly edit the spreadsheet object in the word processing application inside the client window, which is totally different from my Claim (2)(i)-(iii) where the graphic user interface and tools are used to display and edit the relational database data retrieved from the remote server database.

Claim 5

Moursund teaches a system and method for intuitively adding a button or other type of control to a tool bar or other region of a Windows form for holding the same. A

control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund's system is totally different from my invention of the integrated database data editing system.

Moursund (fig. 4A-4G and col. 5, lines 39-45) teaches that "Briefly described, the 'MICROSOFT ACCESS' application program is an interactive relational database for the 'WINDOWS' operating system. The object 26 may be of several different types, including tables, queries, forms, reports, macros, or modules. The 'MICROSOFT ACCESS' application program includes a button creation routine 32 for customizing the toolbar 28 in accordance with the present invention." Moursund does not invent Microsoft Access database, but only teaches a button creation process for customizing the toolbar of the Microsoft Access GUIs (Graphic User Interfaces) with some functions of the Access database, which is totally different from my Claim 5 where the Detail Panel contains the tools and functions to design or edit the remote server database contents.

Microsoft Access is a very simple PC relational database with very limited functions and only supports small data types but not the large text and binary data types. The Access GUIs cannot be separated from the database and both GUIs and database can only run in the same Windows operation system. The Detail Panel of the Database Data Manager in my Claim 5 is installed in the client computer which is separated from the remote server computer database by the networks, and is used to remotely access, edit and manage the server relational database through either intranet or Internet by using TCP/IP based connection-oriented protocols. The technologies for a PC application, client/server application in intranet, and client/server application in Internet are totally different from each other. My invention is the first time to implement the TCP/IP based connection-oriented protocols to communicate and transfer database data between the client and server computers. The Detail Panel in my Claim 5 contains totally different tools and functions from Moursund's form.

As I state above, Gill et al., Koppolu et al. and Moursund do not teach anything related to the intranet or Internet relational database data editing system as my present invention. The systems and methods of Gill, Koppolu and Moursund are not related to each other either.

Claim 7

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a combined document page, which is totally different from my Claim 7 wherein “A web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.”

Gill et al. teach a multi-media object presentation system for printing. Allport teaches a remote control for home electric appliances. Gill et al. and Allport do not teach a system deployed and run on the Internet and also intranet as my integrated database data editing system in the present invention.

Teper et al. teach an online brokering service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the brokering service, and are provided with respective client and server software components for using the brokering service. Teper et al. do not teach anything related to my present invention of the integrated database data editing system.

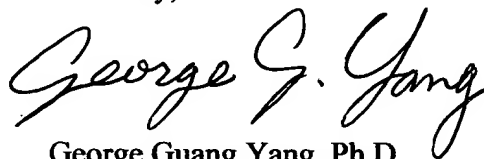
Teper et al. (col. 17, lines 23-33) teach a method to encrypt data by session key and also by Secure Sockets Layer (SSL) protocol. The Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) technologies have been widely used as the industry standards for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. Teper et al. do not invent the data encryption or SSL mechanisms, but just use these industrial standards to implement their applications. In my present invention, it is the first time to use the PKI and SSL security technologies to encrypt and secure the database data transmission between the client computer and the server computer through Internet and intranet.

In conclusion of arguments, my present invention of the integrated database data editing system is original and useful, and is totally different from the prior arts of Gill et al., Bowman-Amuah, Allport, Koppolu et al., Moursund, Teper et al. and any other

inventor, and my Claims 1-7 cannot be rejected under 35 U.S.C. § 103(a) by the examiner. My invention is very significant in both technology and economy aspects, and is patentable under the 35 U.S.C. § 101.

It has taken about eight years now since I filed my patent application in your office on October 2, 2000, which has consumed more than one third of my productive years in my life. My career and personal life have been greatly suffered due to the delay of allowance of my patent application. I have survived by the Federal Social Security Disability Benefit Program for depression for five years now. I believe my life is as precious as the other 6.7 billion people living in this world. I request your office to reverse the rejection of my patent application Claims 1-7 and to allow my Claims 1-7 as soon as possible. Once my patent application is approved by your office, I will implement it as commercial software products to make progress for our "Hi-Tech" industry and to prosper our economy.

Sincerely,

A handwritten signature in black ink that reads "George G. Yang". The signature is written in a cursive, flowing style.

George Guang Yang, Ph.D.

Applicant/Appellant, *Pro Se*

CLAIMS

What I claim as my invention is:

1. An integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:

(i) said client computer retrieves the database data from the remote server computer database, modifies, updates, input, output the data and then sends the data back to the original database; and

(ii) said client computer directly edits and modifies the database data without writing detail computer language codes in an efficient and easy-to-use manner; and

(iii) said client computer directly edits and modifies the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer; and

(iv) said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers; and

(v) said database data editing system implements user authentication and access control mechanisms which assign different user groups with different privileges.

2. The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that display a database table or a subset data of a table and have the following characters:

(i) said database data on each table cell is defaulted as read only; and

(ii) said database small text data on each table cell is directly edited when single-clicked by the mouse; and

(iii) said table cell contains a small icon as a place-holder for the large text data type or large binary data type; and

(iv) said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is

downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed; and

(v) said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell.

5 3. The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents.

10 4. The Header Panel of the Database Data Manager of Claim 3 contains a list of databases and database tables for each database, and

(i) a Detail Panel is popped up when double-clicked the database name; and

(ii) a database table is popped up when double-clicked the table name.

5 5. The Detail Panel of Claims 3 & 4 further contains:

(i) a Database Designer for creating and modifying the database; and

15 (ii) an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and

(iii) a Table Designer for designing and modifying the database tables; and

(iv) a Database Schema for designing and modifying the database data structure and micros; and

20 (v) a Data Filter for selecting a set of data from one or more database tables; and

(vi) an SQL Console for writing and executing the SQL codes to the remote server database.

6. A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.

25 7. A web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.